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FIRST DOCUMENTED RECORD OF ANDEAN PARAKEET *BOLBORHYNCHUS ORBYGNESIUS* IN ARGENTINA, ROOSTING COMMUNALLY IN A STICK NEST

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ABSTRACT.— A group of several Andean Parakeet (*Bolborhynchus orbygnesi*) individuals was observed, photographed and tape-recorded at Finca El Candado, near Los Cardones National Park, Salta Province, northwestern Argentina. There is no previously published record of Andean Parakeet from south of Cochabamba, Bolivia, although there is a tape-recording from Tarija, Bolivia, which is about 350 km north-northwest of Finca El Candado. Additionally, there is an undocumented record of a group of birds 218 km north-northwest of Finca El Candado, between Valle Colorado and Santa Ana, in Jujuy Province, Argentina. Birds were coming to roost in a large stick nest that did not look like any described nest. We do not know if the parrots had constructed this nest entirely or partly, or if it had been made by other bird species. Future research will clarify if Andean Parakeet commonly uses stick nests for roosting, if it breeds in them, and if it is responsible for or contributes to their construction.

KEY WORDS: *Andean Parakeet, Argentina, Bolborhynchus orbygnesi, nesting, roosting.*

RESUMEN. PRIMER REGISTRO DOCUMENTADO DE LA CATITA ANDINA *BOLBORHYNCHUS ORBYGNESIUS* EN ARGENTINA, USANDO COMUNALMENTE UN NIDO DE PALITOS PARA DESCANSAR.— Un grupo de varios individuos de la Catita Andina (*Bolborhynchus orbygnesi*) fue observado, fotografiado y sus voces registradas en Finca El Candado, cerca del Parque Nacional Los Cardones, provincia de Salta, en el noroeste de Argentina. No hay registros previos publicados de la Catita Andina al sur de Cochabamba, Bolivia, aunque hay grabaciones de cantos provenientes de Tarija, Bolivia, unos 350 km al nor-noroeste de Finca El Candado. Además, hay un registro no documentado de un grupo de aves 218 km al nor-noroeste de Finca El Candado, entre Valle Colorado y Santa Ana, en la provincia de Jujuy, Argentina. Las aves utilizaban para descansar un nido grande de palitos que no se parecía a ningún nido previamente descrito. No es posible saber si las catitas habían construido este nido, ya sea totalmente o en parte, o si había sido hecho por otras especies de aves. Futuras investigaciones confirmarán si la Catita Andina usa comúnmente nidos de palitos para descansar, si nidifica en ellos y si es la responsable o contribuye a su construcción.

PALABRAS CLAVE: *Argentina, Bolborhynchus orbygnesi, Catita Andina, nidificación, sitio de descanso.*

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On the evening of 27 March 2009 we observed and tape-recorded a group of 18 green parakeets coming to roost in a large stick nest on Finca El Candado, near Los Cardones National Park, Salta Province, northwestern Argentina (25°12'S, 65°49'W; 2920 masl). The site was a sheltered, bushy, steep-sided rocky canyon in open grassland, presumably a former pocket of Montane Forest in the high Andean zone, but it no longer held any trees. On the following morning the group was observed making short flights and foraging

in low bushes within 500 m of the nest and further tape-recordings were obtained and photographs taken of the birds (Fig. 1) and the nest (Fig. 2). The birds were predominantly green with only a very slight bluish wash to the edge of the primaries, and all individuals in the flock appeared to be of the same species. In some the bill was olive yellow, but in at least one individual it seemed to be lighter. Small numbers of Gray-hooded Parakeet (*Psilopsiagon aymara*) were also observed, on occasions foraging within a few metres of the flock of

green parakeets, and were readily diagnosed by their long tail, distinctive coloration and high-pitched calls. The green birds were evidently either Mountain Parakeet (*Psilopsiagon aurifrons margaritae*) or Andean Parakeet (*Bolborhynchus orbygnesi*).

These two species have been confused in the past and even considered conspecific but are now placed in different genera; Andean Parakeet is monotypic and known from the Andes of Peru and Bolivia, whereas Mountain Parakeet is polytypic, with four subspecies in the Andes of Peru, Bolivia, Chile and Argentina (Collar 1997). They rarely occur at the same locality (Schulenberg et al. 2007), but their ecological separation is not well understood. Andean Parakeet generally appears to favour more diverse and slightly more humid conditions than Mountain Parakeet and as a conse-

quence does not range as low on the Pacific slope or as high in the dry Puna (Berlioz and Dorst 1956, Fjelds  and Krabbe 1990, Schulenberg et al. 2007). The flight is straight in Andean Parakeet, undulating in Mountain Parakeet (Collar 1997), but the birds were only seen making short flights. Information on bill colour varies confusingly according to author (Olrog 1968, Fjelds  and Krabbe 1990, Collar 1997, Schulenberg et al. 2007), but most agree that the bill of Andean Parakeet is olive yellow or greyish, lighter in young birds, and the bill of the Bolivian and northwest Argentinean subspecies of Mountain Parakeet (*Psilopsiagon aurifrons margaritae*) usually light horn brown in males and grey in females. The blue edging on the primaries is barely noticeable in Andean Parakeet, but is much more extensive, forming a distinct panel in Mountain Parakeet (Collar 1997). In order to establish the identity of the observed birds, as many tape-recordings as possible were made and photographs taken. Several photographs show the near absence of blue in the wing, and the best photograph (Fig. 1) shows a bird with an olive yellow bill. A comparison of the tape-recordings of the group flight calls with available sound recordings of the homologous calls of both species (Table 1) identifies the observed birds to Andean Parakeet, which has distinctly richer and lower-pitched, less shrill flight calls than Mountain Parakeet (Fig. 3).



Figure 1. Andean Parakeet (*Bolborhynchus orbygnesi*) on Finca El Candado, Salta Province, Argentina, 28 March 2009. The species is best told from the local subspecies of Mountain Parakeet (*Psilopsiagon aurifrons margaritae*) by voice. It also has more direct flight, much less blue on the edge of the primaries, and is slightly heavier and shorter-tailed. Photo: R Canelo.

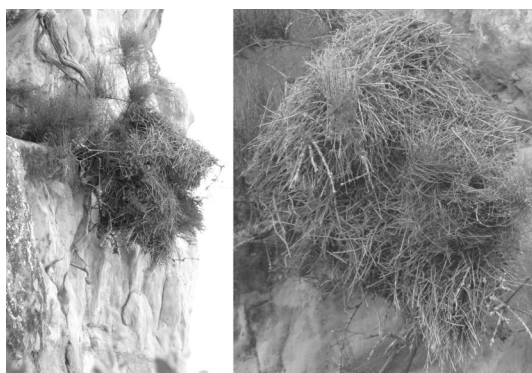


Figure 2. The bulky nest used for roosting by Andean Parakeet (*Bolborhynchus orbygnesi*) on Finca El Candado, Salta Province, Argentina. It measured a little over 1 m in diameter, had several entrance holes in its lower half, and did not look like any described nest. Photos: N Krabbe and R Canelo.

Table 1. Voice recordings examined of Mountain Parakeet (*Psilopsiagon aurifrons*) and Andean Parakeet (*Bolborhynchus orbygnesi*). Sound archives consulted were from Cornell Lab of Ornithology (2009) and Xeno-Canto Foundation (2009). Some recordings from Cornell Lab of Ornithology (2009) that could not be copied online were accessed on Whitney et al. (2002). It should be noted that the cut labelled "Andean Parakeet in flight" on this publication (recording 65358) is of a misidentified Barred Parakeet (*Bolborhynchus lineola*).

Species and subspecies	Location	Recording ^a
<i>Psilopsiagon aurifrons robertsi</i>	La Libertad, Peru	XC 14243
<i>Psilopsiagon aurifrons aurifrons</i>	Lima, Peru	XC 29838
<i>Psilopsiagon aurifrons aurifrons</i>	Arequipa, Peru	LNS 33881
<i>Psilopsiagon aurifrons margaritae</i>	Oruro, Bolivia	LNS 58210
<i>Psilopsiagon aurifrons margaritae</i>	Oruro, Bolivia	LNS 58211
<i>Psilopsiagon aurifrons margaritae</i>	Oruro, Bolivia	XC 16184
<i>Psilopsiagon aurifrons margaritae</i>	Jujuy, Argentina	LNS 116028
<i>Bolborhynchus orbygnesi</i>	Pasco, Peru	LNS 40153
<i>Bolborhynchus orbygnesi</i>	Apurimac, Peru	XC 39928
<i>Bolborhynchus orbygnesi</i>	Cuzco, Peru	XC 16107
<i>Bolborhynchus orbygnesi</i>	Cuzco, Peru	XC 30080
<i>Bolborhynchus orbygnesi</i>	La Paz, Bolivia	XC 2094
<i>Bolborhynchus orbygnesi</i>	Cochabamba, Bolivia	XC 16108
<i>Bolborhynchus orbygnesi</i>	Tarija, Bolivia	XC 4373
<i>Bolborhynchus orbygnesi</i>	Salta, Argentina	XC 32253-32257

^a XC: Xeno-Canto Foundation (2009). LNS: Cornell Lab of Ornithology (2009).

There is no published record of *Bolborhynchus orbygnesi* from south of Cochabamba, Bolivia, but there is a tape-recording from Tarija, Bolivia (Table 1), which is about 350 km north-northwest of Finca El Candado. Additionally, there is an undocumented record by FN Moschione (pers. com.) who heard and saw a group of 45 birds 218 km north-northwest of Finca El Candado, between Valle Colorado and Santa Ana (23°23'S, 64°57'W; 2550 masl), in Jujuy Province, on 6 April 2007.

The nest used for roosting by the Andean Parakeet individuals in Salta did not look like any described nest. It was roughly spherical, a little more than 1 m in diameter, built of twigs, and was suspended 5 m above the valley bottom from a branch overhanging a steep cliff in typical Streak-fronted Thornbird (*Phacellodomus striaticeps*) fashion (Fig. 2). One subunit looked much like a Streak-fronted Thornbird nest and bore little resemblance to known nests of other furnariid genera present (e.g., *Asthenes*, *Leptasthenura*). There were several other compartments with separate entrance holes behind and beside it and sticks added to unify them into a single structure.

We do not know if the parrots had constructed the nest entirely or partly, or if the whole structure had been made by Streak-

fronted Thornbird. Streak-fronted Thornbird is only known to build single-chambered nests, but it is relatively poorly known and its lowland relative, the Rufous-fronted Thornbird (*Phacellodomus rufifrons*) may add many chambers to its nest (Remsen 2003). The nest could conceivably have been constructed by thornbirds and just used by the parrots for roosting, perhaps opportunistically, but could also have been partly built by the parrots. The

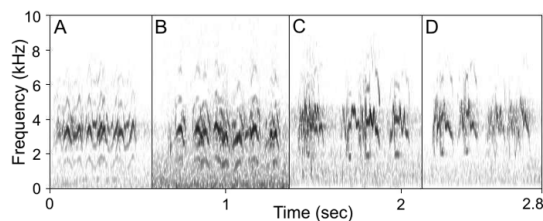


Figure 3. Audiospectrograms from typical group flight calls of Andean Parakeet (*Bolborhynchus orbygnesi*) (A-B) and Mountain Parakeet (*Psilopsiagon aurifrons*) (C-D). The notes of Andean Parakeet differ distinctly from the more complex and higher-pitched notes of Mountain Parakeet. (A) Finca El Candado, Salta Province, Argentina. (B) Cochabamba, Bolivia (XC 16108). (C) Arequipa, Peru (LNS 33881). (D) Oruro, Bolivia (LNS 58211). See table 1 for recordings information.

few parrots reported to roost in stick nests also sometimes use them for nesting (Collar 1997), so the same might also be the case for Andean Parakeet. No nesting record has been published for the species, but Olrog (1968) stated that it nests in banks. The Rufous-fronted Parakeet (*Bolborhynchus ferrugineifrons*) of the Central Andes of Colombia, now considered to be the closest relative of Andean Parakeet (Collar 1997), reportedly nests in cliff cavities (Hilty and Brown 1986). There are three parrots in Australia and New Zealand that nest on the ground, one or more species of the African genus *Agapornis* that commonly roost and occasionally nest in abandoned nests of weaverbirds, and unconfirmed reports that both species of the genus *Enicognathus* may build stick nests in bamboo when natural cavities are absent, but otherwise Monk Parakeet (*Myiopsitta monachus*) is thought to be the only parrot species not excavating a nest hole or using a pre-existing hole in a cliff, bank, tree, or arboreal or terrestrial termite nest for nesting; its nest is often found in connection with some pre-existing stick structure and may be a single or a large communal nest (Collar 1997). The species commonly roosts in and takes over abandoned nests of furnariids (e.g., genera *Pseudoseisura*, *Annumbius*) and does so more often than not, at least locally (Humphrey and Peterson 1978, Nores and Nores 1994, Eberhard 1996, Aramburú and Campos Soldini 2008). It has been suggested that its nest building habits may have come about through the use of furnariid nests for roosting (Collar 1997). The species *Myiopsitta luchi* of the Bolivian Andes, considered a subspecies of *Myiopsitta monachus* by some authors, has only been reported to use separate nests on cliffs (albeit in close proximity to each other; see Collar 1997). An observation by J Fjeldså (pers. com.) from a breeding colony of *Myiopsitta luchi* of parakeets repeatedly landing on and closely examining active nearby nests of Streak-fronted Thornbird without making attempts to rob nesting material might suggest that this species also takes over furnariid nests.

Future research will hopefully clarify if *Bolborhynchus orbynesius* commonly uses stick nests for roosting, if it breeds in them, and if it is responsible for or contributes to their construction.

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